

CLAIMS

- Sub A.* → 1. A high voltage transformer comprising the conventional elements for voltage transformers, said conventional elements being at least
- 5 a high tension transformer (1, 1'),
a rectifier (2, 2'),
a filter (3, 3'),
a resistive divider (4, 4),
a high voltage switch (5, 5'),
10 a magnetic core (7, 7'),
a low voltage input (10),
said high voltage transformer characterized in that,
each of said conventional elements has a first end
and a second end opposite to the first end, with the first
15 ends of all elements connected to ground level, that is to
say, zero voltage,
said conventional elements are arranged in two
differentiated groups, on the one hand the elements with
positive voltages (1-5 and 7) and, on the other, the
20 elements with negative voltages (1'-5' and 7')
the elements with positive voltages (1-5 and 7) are
separated from the elements with negative voltages (1'-5'
and 7') by solid insulating means,
the voltage in each of said conventional elements
25 progressively increases towards the opposed second end in
the elements with positive voltages and progressively
decreases in the elements with negative voltages;; all
this in such a manner that, at an equal distance from the
ground level, the elements of each group have
30 equipotential voltages.
2. A high voltage transformer according to claim 1,
characterized in that the progressive increase of the
voltage in the elements with positive voltage and the
35 progressive decrease of the voltage in the elements with

negative voltage, is linear.

3. A high voltage transformer according to claim 1, characterized in that the level of "zero voltage" is located in the area where the signals of the low voltage input (10) are located.

4. A high voltage transformer according to claim 3, characterized in that the level of "zero voltage" is located at the upper side (9) of the transformer.

5. A high voltage transformer according to any of the preceding claims, characterized in that the maximum level of potential is defined at the lower ends of the high voltage switches (5,5').

6. A high voltage transformer according to claim 1, characterized in that the two groups are separated by a single solid insulating means(6).

7. A high voltage transformer according to claim 1, characterized in that it includes means for minimizing the stray capacitances between the elements of one group and those of the other, said means being determined by an arrangement of said elements, such that the elements of one group have only a very small surface opposed to the elements of the other group.

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